

Amendments to the Claims:

Please cancel Claims 1 – 16 and add claims 26 – 30 as indicated in the following listing of claims, which replaces all prior versions and listings of claims in the application:

Listing of Claims:

17. (Original) A computer-readable storage medium having a computer-readable program embodied therein for directing operation of a substrate processing system including a process chamber; a plasma generation system; a substrate holder; and a gas delivery system configured to introduce gases into the process chamber, the computer-readable program including instructions for operating the substrate processing system to deposit a thin film on a substrate disposed in the process chamber in accordance with the following:

- (a) flowing a process gas comprising a plurality of precursor gases suitable for forming a plasma into the process chamber,; and
- (b) generating a plasma from the process gas to deposit the thin film on the substrate,

wherein the plurality of precursor gases are flowed into the process chamber such that the thin film is deposited at a center of the substrate more rapidly than at an edge of the substrate.

18. (Original) The computer-readable storage medium according to claim 17 wherein the plurality of constituent reaction gases comprises a silane and a gas that contains oxygen.

19. (Original) The computer-readable storage medium according to claim 18 wherein the process gas further comprises an inert gas.

20. (Original) The computer-readable storage medium according to claim 17 wherein the process chamber comprises a top gas source and a side gas source, wherein the gas delivery system is configured to introduce gases into the process chamber through the top gas source and the side gas source, and wherein the computer-readable program further includes instructions to flow at least one of such precursor gases through the top gas source at a higher rate than through the side gas source.

21. (Original) A substrate processing system comprising:

- (a) a housing defining a process chamber;
- (b) a high-density plasma generating system operatively coupled to the process chamber;
- (c) a substrate holder configured to hold a substrate during substrate processing;
- (d) a gas-delivery system configured to introduce gases into the process chamber;
- (e) a pressure-control system for maintaining a selected pressure within the process chamber;
- (f) a controller for controlling the high-density plasma generating system, the gas-delivery system, and the pressure-control system; and
- (g) a memory coupled to the controller, the memory comprising a computer-readable medium having a computer-readable program embodied therein for directing operation of the substrate processing system, the computer-readable program including
 - (i) instructions to control the gas-delivery system to flow a process gas comprising a plurality of precursor gases suitable for forming a plasma into the process chamber; and
 - (ii) instructions to control the high-density plasma generating system to generate a plasma from the process gas to deposit a thin film on the substrate,

wherein the plurality of precursor gases are to be flowed into the process chamber such that the thin film is deposited at a center of the substrate more rapidly than at an edge of the substrate.

22. (Original) The substrate processing system according to claim 21 wherein the plurality of precursor gases comprises a silane and a gas that contains oxygen.

23. (Original) The substrate processing system according to claim 22 wherein the process gas further comprises an inert gas.

24. (Original) The substrate processing system according to claim 23 wherein the inert gas is argon.

25. (Original) The substrate processing system according to claim 21 wherein wherein the gas delivery system is configured to introduce gases into the process chamber through the top gas source and the side gas source, and wherein the computer-readable program further includes instructions to flow at least one of such precursor gases through the top gas source at a higher rate than through the side gas source.

26. (New) The computer-readable storage medium recited in claim 17 wherein the gas delivery system is configured to introduce gases through a top gas nozzle and through a side gas nozzle of the process chamber, the computer-readable program further including instructions for flowing at least one of the precursor gases through the top gas nozzle at a higher rate than through the side gas nozzle.

27. (New) The computer-readable storage medium recited in claim 26 wherein the computer-readable program includes instructions for flowing each of the precursor gases through the top gas nozzle at a higher rate than through the side gas nozzle.

28. (New) The computer-readable storage medium recited in claim 27 wherein the computer-readable program includes instructions for flowing each of the precursor gases only through the top gas nozzle.

29. (New) The substrate processing system recited in claim 25 wherein the computer-readable program includes instructions to flow each of the precursor gases through the top gas nozzle at a higher rate than through the side gas nozzle.

30. (New) The substrate processing system recited in claim 29 wherein the computer readable program includes instructions to flow each of the precursor gases only through the top gas nozzle.